



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,355	08/02/2000	Tetsuya Nishi	1046.1028D2/DSG	9683

21171 7590 03/11/2003

STAAS & HALSEY LLP  
700 11TH STREET, NW  
SUITE 500  
WASHINGTON, DC 20001

EXAMINER

SHAFFER, RICKY D

ART UNIT PAPER NUMBER

2872

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/631,355

Applicant(s)

NISHI ET AL

Examiner

R.D. SHAFER

Group Art Unit

2872

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 12/16/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 23 - 38 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☒ Claim(s) 23 - 31 is/are allowed.
- ☒ Claim(s) 32 - 38 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☒ Certified copies of the priority documents have been received in Application No. 08/200,657.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 2872

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/15/02 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 32-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Healey et al ('140).

Healey et al discloses an optical space switch (2) comprising a plurality of polarization control optical switches (S1, S2, S3), each having a plurality of inputs (20) and a plurality of outputs (0) connected together as a eight way N X N space switch, wherein each of the polarization control switches comprising a polarization controller (C1, C2, C3) and a plurality

Art Unit: 2872

switching elements/means [(R1, R2, R3) and (D1, D2, D3) or (B1, B2, B3)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-5 and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the plurality of switching elements/means (R1, R2, R3) in the matrix. (i.e the eight way N X N space switch has 8 to the eighth possible settings, which would include activating only one of the 8 to the eighth settings to obtain an output.)

4. Claims 32-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al ('944).

Yamamoto et al discloses an optical space switch comprising a plurality of polarization control optical switches (A, B, C), each having a plurality of inputs (I) and a plurality of outputs (O) connected together as a N X N matrix, wherein N=1, wherein each of the polarization control switches comprising a polarization controller (not shown) and a plurality of switching elements/means [(2A) and (3, 6, 7, 21A, 21B, 21C, 22)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 4A to 6B, 9A to 11B and 17A to 17B and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching elements/means (2A) in the matrix. (i.e. see

Art Unit: 2872

Fig. 17B, wherein the dashed line (---) represents a reflected (off) state of a switch and the solid line represents a transmitted (on) state of a switch. Thus, input node 1 to output node 7 includes the switch (2A) of C to be off, the switch (2A) of B to be off and the switch (2A) of C to be on to obtain an output.)

5. Claims 32-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Dejule et al ('445).

Dejule et al discloses an optical space switch comprising a plurality of polarization control optical switches (S1,1, S1,2, S2,1 and S2,2), each having a plurality of inputs (K1-K12) and a plurality of outputs (L1-L8) connected together as a N X N matrix, wherein optical switches (S1, 2 and S2,2) serve as the last column, wherein each of the polarization control switches comprising a polarization controller (not shown) and a switching elements/means [(F1,1, F1,2, F2,1 and F2,2) and (B1,1, B1,2, B2,1 and B2,2)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-3 and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching elements/means (F1, 1, F1,2, F2,1 and F2,2) in the matrix. (i.e. see Fig. 2, wherein no voltage (off state) rotates the polarization of the switch and having voltage (on state) maintains the polarization of the switch. Thus, to include a selected polarization output at D2,2, the switch (F1,1) of S1,1 is on, the switch (F1,2) of S1,2 is off).

Serial Number: 09/631,355

Page 5

Art Unit: 2872

6. Claims 23-31 are allowed.
7. Any inquiry concerning this communication should be directed to R. D. Shafer at telephone number (703) 308-4813.

RDS

March 3, 2003

*Ricky D. Shafer*  
RICKY D. SHAFER  
PATENT EXAMINER  
ART UNIT 2872